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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/522,627
Filing Date: January 31, 2005
Appellant(s): RICHARDS ET AL.

Mark Oathout (Reg. No. 33,747)
For Appellants

EXAMINER'S ANSWER

This is in response to the appeal brief filed 26 October 2009 appealing from the Office action mailed 25 March 2009.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellants' statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellants' statement of the grounds of rejection to be reviewed on appeal is correct. It is noted that the phrase "Claims 63" in the first line under the heading "Ground 5" on page 11 should apparently be "Claim 63".

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(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

4,828,651	Lumbroso, et al.	5-1989
4,799,554	Clapp, et al.	2-1994
3,285,485	Slator	11-1966
6,206,317	Harvestine	3-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 61 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

The term "high" in claim 61 is a relative term which renders the claim indefinite.

The term "high" is not defined by the claim, the specification does not provide a

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standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 43-47, 50-52 and 70 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by US 4,828,651 to Lumbroso, et al. (hereinafter "Lumbroso").

Regarding claims 43-47 and 70 , Lumbroso teaches a device for cleaning a coking reactor (abstract) and discloses: a mass (Fig. 1, ref. 12 and col. 3, line 58), or elongated rigid conduit, that is fully capable of being inserted into a vessel and extending therein; a flexible tube (Fig. 1, ref. 10 and col. 3, lines 50 and 51), or elongated flexible conduit, that is fully capable of being inserted through the rigid conduit into a vessel for conducting pressurized liquid and extending beyond an innermost end of the rigid conduit as claimed; and superimposed layers with watertight sheathings (col. 2, lines 64-66), that read on the sealing device between the conduits.

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Regarding claim 46, the Lumbroso rigid conduit comprises a rigid shroud (Fig. 1, ref. 12) having a shape complimentary to that of the flexible conduit and which is fully capable of being extended into the vessel.

Regarding claim 47, the Lumbroso rigid conduit is fully capable of being inserted through an opening defined in a wall of the vessel.

Regarding claims 50 and 51, Lumbroso discloses the flexible conduit is capable of conducting the liquid at a pressure of at least 10,000 psi (col. 3, lines 9 and 10).

Regarding claim 52, the Lumbroso flexible conduit is sufficiently long to be inserted through the rigid conduit into a coker vessel (see Fig. 1, ref. 11 and col. 3, lines 54 and 55). It is noted that the coker vessel is not claimed as part of the claimed apparatus.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicants are advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 53-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lumbroso (US 4,799,554).

Regarding claim 53, Lumbroso discloses a nozzle (Fig. 2B, ref. 22 and col. 54-57) at a tip of the flexible conduit, but does not explicitly teach that the nozzle is part of the flexible conduit. However, making the nozzle a part of the flexible conduit would be merely a matter of obvious engineering choice. MPEP 2144.04(B).

Regarding claim 54-57, it is again noted that the neither the coker vessel, nor the components thereof, are claimed as part of the claimed apparatus. Lumbroso discloses a flexible conduit (Fig. 1, ref. 10 and col. 3, lines 50 and 51), which is sufficiently long for the nozzle to be inserted into the snout of a coker vessel (Fig. 1, ref. 2) and discloses that is at least long enough to be wound on a drum (Fig. 1, ref. 5) having a radius of 5 meters (claim 4), but does not explicitly teach the flexible conduit is sufficiently long to

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be inserted through the snout into a gas tube of the coker. However, the skilled artisan would have found it obvious to include a flexible conduit of sufficient length in order to locate the nozzle as needed for enhancing the cleaning process, including sufficiently long to be inserted through the snout into a gas tube of the coker, through the gas tube into a cyclone region of the coker, and through the cyclone region into a vicinity of a dip leg of the coker. MPEP 2144.04(IV)(A).

Claims 48, 49, 58-62, 69, 71 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lumbroso (US 4,799,554) in view of US 4,799,554 to Clapp, et al. (hereinafter "Clapp").

Regarding claims 48, 49, 69, 71 and 72 generally, initially it is noted that the claims only require that the rigid conduit is insertable through the valve assembly. The valve assembly itself is not claimed as part of the claimed apparatus.

Regarding claim 48, Lumbroso does not explicitly teach that the rigid conduit is insertable through a valve assembly. Clapp teaches an apparatus for pressurized cleaning (abstract) and discloses an elongated rigid valve assembly (Fig. 1, ref. 31 and col. 4, lines 7 and 8) wherein tubing (Fig. 1, ref. 23 and col. 4, line 1), or rigid conduit, is inserted. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a valve-insertable rigid conduit as per the Clapp teaching in the apparatus as per the Lumbroso teaching in order to control access to and fluid communication with the conduits. It is noted that the Lumbroso/Clapp rigid conduit is insertable through a valve assembly extending through a wall of a vessel.

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Regarding claims 49 and 69, Lumbroso and Clapp disclose the second sealing device (Lumbroso at col. 2, lines 64-66), but do not explicitly teach a sealing device located between the rigid conduit and the valve assembly. However, the skilled artisan would have found it obvious to include a sealing device between the rigid conduit and the valve assembly in order to inhibit the escape of pressurized fluid from the valve assembly. See MPEP 2144.04(IV)(A) and (B).

Regarding claim 58, Lumbroso does not explicitly teach that the flexible conduit comprises coiled tubing. Clapp teaches an apparatus for pressurized cleaning (abstract) and discloses a flexible conduit comprising coiled tubing (Fig. 1, ref. 26 and col. 3, line 68). It would have been obvious to one of ordinary skill in the art at the time of the invention to include coiled tubing as per the apparatus of the Clapp teaching as part of the flexible conduit in the teaching as per the Lumbroso teaching due to the operational ease and safety of coiled tubing and its ability to deliver liquids under pressure.

Regarding claim 59, Lumbroso and Clapp disclose a reel (Lumbroso at Fig. 1, ref. 5 and col. 3, lines 41 and 42).

Regarding claims 60 and 61, Lumbroso and Clapp disclose the reel comprises a liquid junction comprising a high pressure fluid swivel connector (Lumbroso at col. 3, lines 42-46) connectable to an input end of the coiled tubing and connectable to a liquid supplying device (Fig. 1, ref. 6 and col. 3, lines 44 and 45) which is fully capable of being used to conduct pressurized liquid from the liquid supplying device into the coiled tubing.

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Regarding claim 62, Lumbroso and Clapp disclose a liquid supplying device comprising a pump (col. 2, lines 29 and 30), but do not explicitly teach that the pump is a mechanical pump and a hose. However, mechanical pumps and hoses are well known in the art and are not disclosed as critical to the presently claimed apparatus. The skilled artisan would have found it obvious to include a mechanical pump in the apparatus of the Lumbroso/Clapp teachings since mechanical pumps have been around for years and are low cost, and to include a hose connectable to the pump and liquid junction in order to enhance to freedom of movement of the pump.

Regarding claims 71 and 72, Lumbroso teaches a device for cleaning a coking reactor (abstract) and discloses: a mass (Fig. 1, ref. 12 and col. 3, line 58), or elongated rigid conduit, that is fully capable of being inserted into a vessel and extending therein; a flexible tube (Fig. 1, ref. 10 and col. 3, lines 50 and 51), or elongated flexible conduit, that is fully capable of being inserted through the rigid conduit into a vessel for conducting pressurized liquid and extending beyond an innermost end of the rigid conduit as claimed; and superimposed layers with watertight sheathings (col. 2, lines 64-66), that read on the sealing device between the conduits.

Lumbroso does not explicitly teach that the rigid conduit is insertable through a valve assembly. Clapp teaches an apparatus for pressurized cleaning (abstract) and discloses an elongated rigid valve assembly (Fig. 1, ref. 31 and col. 4, lines 7 and 8) wherein tubing (Fig. 1, ref. 23 and col. 4, line 1), or rigid conduit, is inserted. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a valve-insertable rigid conduit as per the Clapp teaching in the apparatus as

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per the Lumbroso teaching in order to control access to and fluid communication with the conduits. It is noted that the Lumbroso/Clapp rigid conduit is insertable through a valve assembly extending through a wall of a vessel.

Lumbroso/Clapp discloses a sealing device but do not explicitly teach a sealing device located between the rigid conduit and the valve assembly. However, the skilled artisan would have found it obvious to include a sealing device between the rigid conduit and the valve assembly in order to inhibit the escape of pressurized fluid from the valve assembly. See MPEP 2144.04(IV)(A) and (B).

Claims 64-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lumbroso (US 4,799,554) in view of US 3,285,485 to Slator (hereinafter "Slator").

Regarding claim 64, Lumbroso does not explicitly teach the apparatus further comprises an insertion device. Slator teaches an apparatus for handling tubing (col. 1, line 10) and discloses an insertion device (Fig. 1, ref. A and col. 2, lines 23 and 24), which is fully capable of inserting the flexible conduit through a rigid conduit into the vessel. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the insertion device as per the Slator teaching in the apparatus as per the Lumbroso teaching in order to secure the flexible conduit when pressurized.

Regarding claim 65, Lumbroso and Slator disclose the insertion device comprising an injector assembly (Fig. 1, ref. G and G-1 and col. 2, lines 27 and 28),

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which are fully capable of gripping the flexible conduit and pushing it through a rigid conduit.

Regarding claim 66, Lumbroso and Slator disclose the injector assembly comprises first and second opposing traction belts (Fig. 1, ref. G and G-1 and col. 2, lines 27 and 28), which are fully capable of snugly gripping the flexible conduit therebetween.

Regarding claim 67, Lumbroso and Slator disclose the injector assembly further comprising drive mechanisms (Fig. 3, ref. 20 and 21 and col. 3, lines 33-35), which are fully capable of being used to rotate the traction belts in opposite respective directions to move the fluid conduit through the injector assembly.

Claim 63 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lumbroso (US 4,799,554) in view of Clapp (US 4,799,554) and in further view of US 6,206,317 to Harvestine (hereinafter "Harvestine").

Lumbroso and Clapp do not explicitly teach the reel comprises at least one retaining member. Harvestine teaches an apparatus for coiling a hose (abstract) and discloses a reel comprising a retaining member (Fig. 1, ref. 20 and 30, respectively, and col. 3, lines 14-17). It would have been obvious to one of ordinary skill in the art at the time of the invention to include a retaining member as per the apparatus of the Harvestine teaching with the reel of the apparatus as per the Lumbroso/Clapp teachings in order to enhance operator safety. The retaining member of the apparatus of the Lumbroso/Clapp/Harvestine teachings is fully capable of retaining the tubing to the reel.

(10) Response to Argument

Regarding the first ground of rejection, and with respect to the Appeal Brief heading "1.a. Claims 43, 44, 46, 47 & 50-52", appellants argue that the applied art does not teach or suggest that the elongated flexible conduit of the device as per the Lumbroso (US 4,828,651) teaching is fully capable of being inserted through the rigid conduit and extendable beyond an innermost end of the rigid conduit since, it is alleged, Lumbroso teaches the rigid conduit is a mass under the influence of gravity which rests against the turbine (see Appeal Brief at page 12, paragraph beginning "On page 4"). The examiner maintains that the applied art does supply this teaching. Lumbroso discloses that the flexible conduit (Fig. 1, ref. 10) carries a turbine (Fig. 1, ref. 11 and col. 3, lines 54 and 55), and the turbine is shown in Fig. 1 to be at a lower end of the rigid conduit (Fig. 1, ref. 12). Thus, the flexible conduit is at least sufficiently long to extend beyond the innermost upper end of the rigid conduit, in order to carry the turbine. It is noted that the claim language does not require that the flexible conduit actually be inserted in the rigid conduit, but rather only that the flexible conduit be capable of being inserted in the rigid conduit.

Regarding appellants' assertion that Lumbroso teaches the rigid conduit is a mass under the influence of gravity which rests against the turbine (see Appeal Brief at page 12, paragraph beginning "On page 4"), it is not clear how this assertion, if it is true, bears on the issue of rejection. At any rate, Lumbroso clearly discloses the elongated flexible conduit attached to a turbine (col. 3, line 54) (which is acknowledged by appellants in the Appeal Brief in the first two lines at the top of page 16), which turbine

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is at the bottom of the rigid conduit (Fig. 2A, ref. 11 and 12, respectively); thus, the flexible conduit passes through the top of the rigid conduit (Fig. 1, ref. 10 and 12, respectively) and extends through the rigid conduit to the turbine.

Appellants next argue that the Office has ignored the functional language in the claims (see Appeal Brief at page 12, paragraph beginning "The examiner appears"). Appellants do not point out what claim recitations they deem to be the ignored functional language, though presumably the assertion refers to the "insertable" conduit recitations at claim 43, line 4 and claim 44, line 2) discussed above. The examiner takes the position that the functional language has been considered (see the Office action mailed 3/25/2009 at page 4, paragraph beginning "Regarding claims 43-47" and page 13, first paragraph). The present claims are directed to an apparatus, rather than to a method. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Thus, the examiner has considered that the prior art must teach or suggest an apparatus which is fully capable of being used to perform the function(s). For example, as discussed above the examiner has applied prior art disclosing a flexible conduit which is fully capable of being inserted into, and extending into, a rigid conduit. Though it is not germane to the issue of rejection, it is noted that Lumbroso actually discloses appellants' intended use, i.e. flexible conduit inserted into, and extending beyond and end, of a rigid conduit (Figs. 1 and 2A, ref. 10 11 and 12, and col. 3, line 54).

The following issue is being addressed for the first time herein because it was raised for the first time in the Appeal Brief. Appellants next argue that the applied art does not teach or suggest a rigid conduit which is fully capable of extending into a vessel being cleaned since, it is alleged, to “extend” in the context of Lumbroso would mean that the rigid conduit has one point outside the vessel and another point inside the vessel (see Appeal Brief at page 14, paragraph beginning “Next, on page 4”). The examiner maintains the position that the applied art does teach or suggest a rigid conduit which is fully capable of extending into a vessel. The rigid conduit of Lumbroso (Fig. 1, ref. 12) is fully capable of being raised and lowered by the flexible conduit (Fig. 1, ref. 10) via a winder (Fig 1, ref. 5 and col. 42) (which process is acknowledged in the Appeal Brief at page 15, first paragraph), such that the rigid conduit has one end above the vessel (Fig. 1, ref. 2) and extends into the vessel to another end, i.e. the top of the rigid conduit (ref. 12) sticks out of the neck at the top of the vessel (ref. 2). It is noted that the claim language does not require that the flexible conduit actually be inserted in the rigid conduit, but rather only that the flexible conduit be capable of being inserted in the rigid conduit.

The following issue is being addressed for the first time herein because it was raised for the first time in the Appeal Brief. Appellants next argue (Appeal Brief heading “1.b. Claims 45 & 70”) that the applied art does not teach or suggest a rigid conduit since, it is alleged, the mass of Lumbroso (ref. 12) is not a conduit because it is not a channel or means whereby something is passed (see Appeal Brief at paragraph bridging pages 15 and 16). The examiner takes the position that Lumbroso mass is

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conduit with respect to the flexible hose (ref. 10) since the flexible hose passes through the mass (Fig. 1, ref. 10 and 12, respectively) to a turbine at the bottom of the mass (Fig. 2A, ref. 11 and 12, respectively, and col. 3, line 54).

The following issue is being addressed for the first time herein because it was raised for the first time in the Appeal Brief. Appellants next argue that the applied art does not teach or suggest a sealing device which is fully capable of sealing a gap between the flexible conduit and the rigid conduit to prevent fluid from traveling through the gap since, it is alleged, the sealing device disclosed in Lumbroso (col. 2, lines 64-66) is not disclosed as sealing a gap between the flexible conduit and the rigid conduit (see Appeal Brief at page 16, paragraph beginning "On page 4"). The examiner takes the position that Lumbroso discloses superimposed layers with watertight sheathing (col. 2, lines 64-66) which reads on the sealing device. As to preventing fluid from traveling through a gap, the gap itself is not positively recited as a limiting structural feature of the claimed apparatus, and a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Here, for example, an inner layer of the sealing device of Lumbroso (col. 2, lines 64-66) could have a gap, e.g. by design, defect or damage, and an outer layer with watertight sheathing of the sealing device is fully capable of preventing fluid from traveling through the gap and out to the rigid conduit.

The following issue is being addressed for the first time herein because it was raised for the first time in the Appeal Brief. Regarding appellants' remark that 35 USC 102(b) is the more appropriate ground of rejection (see Appeal Brief at page 12, paragraph beginning "In the rejection"), the claims under 35 USC 102(a) and (e) may apparently also be rejected under 35 USC 102(b). This issue does not address the allowability of the claims.

Regarding the second ground of rejection, appellants first argue (Appeal Brief heading "2.a. Claim 53") that claim 53 is allowable based upon appellants' arguments made for the first ground of rejection and do not add further arguments (see Appeal Brief at page 17, paragraph immediately below the heading "2.a. Claim 53"). Accordingly, the examiner maintains the positions stated for the first ground of rejection.

The following issue is being addressed for the first time herein because it was raised for the first time in the Appeal Brief. Appellants next argue (Appeal Brief heading "2.b. Claim 54") that the applied art does not teach or suggest a flexible conduit which is sufficiently long to be inserted into a snout of a coker vessel since, it is alleged, a particular passage in Lumbroso is vague with respect to this functional claim language (see Appeal Brief at page 17, paragraph beginning "Further, on page 6"). Initially, it is noted that the coker vessel is not claimed as part of the claimed apparatus; i.e., the claims merely require flexible conduit of lengths capable of reaching a coker snout but do not require a coker snout itself. The examiner maintains the position that Lumbroso discloses a flexible conduit (Fig. 1, ref. 10 and col. 3, lines 50 and 51), which is

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sufficiently long for the nozzle to be inserted into the snout of a coker vessel (Fig. 1, ref. 2). See the Office action mailed on 3/25/2009, paragraph bridging pages 6 and 7. It is noted that, in addition to disclosing a portion of the flexible conduit in a vessel (Figure 1, ref. 10 and 2, respectively) Lumbroso discloses of a drum (Fig. 1, ref. 5) having a radius of 5 meters (claim 4) for winding excess length of flexible conduit. Thus, the examiner does not rely on the particular Lumbroso passage which appellants have characterized as vague.

The following issue is being addressed for the first time herein because it was raised for the first time in the Appeal Brief. Appellants next argue that the Office failed to determine the level of ordinary skill in the art (see Appeal Brief at page 17, paragraph beginning "Further, on page 6"). The examiner takes the position that the person of ordinary skill in the art is a hypothetical person who is presumed to have known the relevant art at the time of the invention. Factors that may be considered in determining the level of ordinary skill in the art may include: (A) "type of problems encountered in the art;" (B) "prior art solutions to those problems;" (C) "rapidity with which innovations are made;" (D) "sophistication of the technology; and" (E) "educational level of active workers in the field. In a given case, every factor may not be present, and one or more factors may predominate." MPEP 2141.03 citing *In re GPAC*, 57 F.3d 1573, 1579, 35 USPQ2d 1116, 1121 (Fed. Cir. 1995); *Custom Accessories, Inc. v. Jeffrey-Allan Industries, Inc.*, 807 F.2d 955, 962, 1 USPQ2d 1196, 1201 (Fed. Cir. 1986); and *Environmental Designs, Ltd. V. Union Oil Co.*, 713 F.2d 693, 696, 218 USPQ 865, 868 (Fed. Cir. 1983). A person of ordinary skill in the art is also a person of ordinary

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creativity, not an automaton, who is able in many cases, to fit the teachings of multiple patents together like pieces of a puzzle. MPEP 2141.03 citing *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1397 (2007).

The following issue is being addressed for the first time herein because it was raised for the first time in the Appeal Brief. Appellants next argue (Appeal Brief heading "2.c. Claims 55-57") that the applied art does not teach or suggest a flexible conduit which is sufficiently long for a nozzle at a tip of the flexible conduit to be inserted to and through various components of a coker vessel such as a snout, gas tube, cyclone region and dip leg vicinity since, it is alleged, Lumbroso does not imply the functional limitation of length sufficient for such insertion (see Appeal Brief at page 18, first paragraph). Initially, it is again noted that a coker vessel and its various components are not claimed as part of the claimed apparatus; i.e., the claims merely require flexible conduit of lengths capable of reaching such recited components but do not require the components themselves. The examiner maintains that position that the skilled artisan would have found it obvious to include a flexible conduit of sufficient length in order to locate a nozzle as needed for enhancing the cleaning process, including sufficiently long to be inserted through a snout of a coker, through a gas tube, into a cyclone region and into a dip leg vicinity. MPEP 2144.04(IV)(A). See the Office action mailed on 3/25/2009, paragraph bridging pages 6 and 7. That is, the skilled artisan would have found it obvious to include sufficient length of flexible conduit in order to comprehensively clean the object being cleaned, such as a coker vessel. Regarding appellants' assertion that the flexible hose of Lumbroso is incapable of being

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insufficiently long to enter the “claimed” gas tube, cyclone region and dip leg structures of a coker vessel since, it is alleged, the flexible conduit of Lumbroso drops vertically into a vessel under the influence of gravity (see Appeal Brief at page 18, first paragraph), it is again noted that a coker and coker components, e.g. gas tubes and dip leg, are not part of the claimed apparatus (see Office action mailed on 3/25/2009 at page 5, last paragraph) and the skilled artisan would have found it obvious to include sufficient length of flexible conduit in order to comprehensively clean the object being cleaned. MPEP 2144.04(IV)(A).

Appellants repeat the argument that the Office failed to determine the level of ordinary skill in the art (see Appeal Brief at page 18, first paragraph). The examiner again takes the position stated above in response to the first occurrence of this argument. That is, the person of ordinary skill in the art is a hypothetical person who is presumed to have known the relevant art at the time of the invention. Factors that may be considered in determining the level of ordinary skill in the art may include: (A) “type of problems encountered in the art;” (B) “prior art solutions to those problems;” (C) “rapidity with which innovations are made;” (D) “sophistication of the technology; and” (E) “educational level of active workers in the field. In a given case, every factor may not be present, and one or more factors may predominate.” MPEP 2141.03 citing *In re GPAC*, 57 F.3d 1573, 1579, 35 USPQ2d 1116, 1121 (Fed. Cir. 1995); *Custom Accessories, Inc. v. Jeffrey-Allan Industries, Inc.*, 807 F.2d 955, 962, 1 USPQ2d 1196, 1201 (Fed. Cir. 1986); and *Environmental Designs, Ltd. V. Union Oil Co.*, 713 F.2d 693, 696, 218 USPQ 865, 868 (Fed. Cir. 1983). A person of ordinary skill in the art is also a

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person of ordinary creativity, not an automaton, who is able in many cases, to fit the teachings of multiple patents together like pieces of a puzzle. MPEP 2141.03 citing *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1397 (2007).

The following issue is being addressed for the first time herein because it was raised for the first time in the Appeal Brief. Regarding the third ground of rejection, appellants first argue (Appeal Brief heading “3.a. Claim 48”) that the applied prior art does not teach or suggest the apparatus wherein a rigid conduit is insertable through an elongated rigid valve assembly since, it is alleged, Clapp (US 4,799,554) does not disclose the valve assembly to be elongated (see Appeal Brief at page 19, second paragraph). The examiner maintains the position that the claims only require that the rigid conduit is insertable through an elongated valve assembly. The valve assembly itself is not claimed as part of the claimed apparatus (see Office action mailed 3/25/2009 at page 7, paragraph beginning “Regarding claims 48, 49, 69, 71 and 72 generally”). The rigid conduit of the applied art is fully capable of being inserted into an elongated valve assembly. Assuming, *arguendo*, the valve assembly were a part of the claimed apparatus, the application does not define the term “elongated valve assembly” and the valve assembly disclosed in Clapp (Fig. 1, ref. 31) can be reasonably described as lengthy, or elongated, since it is shown to be as long as the diameter of a truck wheel.

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The following issue is being addressed for the first time herein because it was raised for the first time in the Appeal Brief. Appellants next argue that the applied prior art does not teach or suggest the apparatus wherein a rigid conduit is insertable through an elongated rigid valve assembly since, it is alleged, the rigid conduit of Clapp is downhole tubing and appears to be of larger diameter than the valve assembly (see Appeal Brief at page 19, second paragraph). The examiner maintains the position that the claims only require that the rigid conduit is insertable through an elongated valve assembly. The valve assembly itself is not claimed as part of the claimed apparatus (see Office action mailed 3/25/2009 at page 7, paragraph beginning "Regarding claims 48, 49, 69, 71 and 72 generally"). The rigid conduit of the applied art is fully capable of being inserted into an elongated valve assembly, i.e. the valve assembly is not part of the claimed apparatus and an operator can insert the rigid conduit into a valve assembly which is sufficiently large to receive the rigid conduit.

The following issue is being addressed for the first time herein because it was raised for the first time in the Appeal Brief. Appellants next argue (Appeal Brief heading "3.b. Claims 49 & 71") that the applied art does not disclose a sealing device for sealing a gap between a rigid conduit and a valve assembly (see Appeal Brief at page 19, paragraph immediately below the heading "3.b. Claims 49 & 71"). The examiner has acknowledged that the applied art of record, which discloses a sealing device, does not explicitly teach the feature of a sealing device between a rigid conduit and valve assembly (see Office Action mailed on 3/25/2009 at page 8, first paragraph) and maintains the position that the skilled artisan would have found it obvious to include a

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sealing device between the rigid conduit and a valve assembly in order to inhibit the escape of pressurized fluid from the valve assembly.

Appellants again repeat the argument that the Office failed to determine the level of ordinary skill in the art (see Appeal Brief at page 19, paragraph immediately below the heading “3.b. Claims 49 & 71”). The examiner again takes the position stated above in response to the first occurrence of this argument. That is, the person of ordinary skill in the art is a hypothetical person who is presumed to have known the relevant art at the time of the invention. Factors that may be considered in determining the level of ordinary skill in the art may include: (A) “type of problems encountered in the art;” (B) “prior art solutions to those problems;” (C) “rapidity with which innovations are made;” (D) “sophistication of the technology; and” (E) “educational level of active workers in the field. In a given case, every factor may not be present, and one or more factors may predominate.” MPEP 2141.03 citing *In re GPAC*, 57 F.3d 1573, 1579, 35 USPQ2d 1116, 1121 (Fed. Cir. 1995); *Custom Accessories, Inc. v. Jeffrey-Allan Industries, Inc.*, 807 F.2d 955, 962, 1 USPQ2d 1196, 1201 (Fed. Cir. 1986); and *Environmental Designs, Ltd. V. Union Oil Co.*, 713 F.2d 693, 696, 218 USPQ 865, 868 (Fed. Cir. 1983). A person of ordinary skill in the art is also a person of ordinary creativity, not an automaton, who is able in many cases, to fit the teachings of multiple patents together like pieces of a puzzle. MPEP 2141.03 citing *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1397 (2007).

The following issue is being addressed for the first time herein because it was raised for the first time in the Appeal Brief. Appellants next argue (Appeal Brief heading

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“3.c. Claims 68 & 72”) that the applied art does not teach or suggest a second sealing device since, it is alleged, the sealing device disclosed in Lumbroso cannot be both a sealing device for sealing a gap between a rigid conduit and a valve assembly and a second sealing device for sealing a gap between a flexible conduit and the rigid conduit (see Appeal Brief at paragraph bridging pages 19 and 20). The examiner takes the position that Lumbroso discloses “several watertight plastic sheathings” (col. 2, lines 65 and 66), each sheathing of which is a sealing device; thus, there is at least one more sealing device, a second sealing device. As previously discussed, the examiner has acknowledged that the applied art of record, which discloses a sealing device, does not explicitly teach the feature of a sealing device between a rigid conduit and valve assembly (see Office Action mailed on 3/25/2009 at page 8, first paragraph) and maintains the position that the skilled artisan would have found it obvious to include a sealing device between the rigid conduit and a valve assembly in order to inhibit the escape of pressurized fluid from the valve assembly.

Appellants next state (Appeal Brief heading “3.d. Claims 58-62”) that claims 58-62 are allowable based upon appellants' arguments made in Appeal Brief section 1.a. and present no further arguments (see Appeal Brief at page 20, paragraph immediately below the heading “3.d.. Claim 58-62”). Accordingly, the examiner maintains the positions stated for Appeal Brief section 1.a.

The following issue is being addressed for the first time herein because it was raised for the first time in the Appeal Brief. Regarding the fourth ground of rejection,

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appellants first argue (Appeal Brief heading "4.a. Claim 64") that there is no suggestion or motivation to modify the apparatus as per the Lumbroso teaching in view of the Slator (US 3,285,485) since, it is alleged, adding an insertion device as per the Slator disclosure to the apparatus as per the Lumbroso teaching would "destroy Lumbroso's intended function and/or principal of operation" by defeating the purpose of Lumbroso's mass, or rigid conduit, which is asserted to be incorporated to function as a weight seated on the turbine (see Appeal Brief at page 20, paragraph beginning "Further, on page 10"). Regarding the alleged destruction of the intended function of Lumbroso's apparatus, i.e. rendering the Lumbroso apparatus unsatisfactory for its intended purpose, the examiner takes the position that the mass, or rigid conduit, of Lumbroso is only one component of the Lumbroso apparatus and the modification with Slator does not render the Lumbroso apparatus unsatisfactory for its intended purpose, i.e. decoking reactors (Lumbroso abstract). Regarding the alleged changing of the principle of operation, the examiner takes the position that the present claims do not require that the structure actually inserts the flexible conduit through the rigid conduit (thereby allegedly destroying the principled of operation), but only that the structure be fully capable of doing so. The structure disclosed in Slator (Fig. 1, ref. A, and col. 2, lines 23 and 24) that reads on the claimed insertion device need not be combined with the Lumbroso apparatus in order to fulfill the same intended use appellants have disclosed. In fact, the rejection does not put forth that the motivation to combine with Slator is for inserting the flexible conduit into the rigid conduit, but rather that the motivation is for securing the flexible conduit when pressurizing (see the Office action mailed 3/25/2009

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at page 10, paragraph beginning "Regarding claim 64"). Assuming, *arguendo*, the insertion device were used to insert the flexible conduit into the rigid conduit, it is not apparent how this would destroy the principle of operation of the mass, or rigid conduit. In fact a downward force applied by the insertion device would add to the gravitational effect of the mass, thereby enhancing the total downward force.

Appellants again repeat the argument that the Office failed to determine the level of ordinary skill in the art (see Appeal Brief at page 21, first paragraph). The examiner again takes the position stated above in response to the first occurrence of this argument. That is, the person of ordinary skill in the art is a hypothetical person who is presumed to have known the relevant art at the time of the invention. Factors that may be considered in determining the level of ordinary skill in the art may include: (A) "type of problems encountered in the art;" (B) "prior art solutions to those problems;" (C) "rapidity with which innovations are made;" (D) "sophistication of the technology; and" (E) "educational level of active workers in the field. In a given case, every factor may not be present, and one or more factors may predominate." MPEP 2141.03 citing *In re GPAC*, 57 F.3d 1573, 1579, 35 USPQ2d 1116, 1121 (Fed. Cir. 1995); *Custom Accessories, Inc. v. Jeffrey-Allan Industries, Inc.*, 807 F.2d 955, 962, 1 USPQ2d 1196, 1201 (Fed. Cir. 1986); and *Environmental Designs, Ltd. V. Union Oil Co.*, 713 F.2d 693, 696, 218 USPQ 865, 868 (Fed. Cir. 1983). A person of ordinary skill in the art is also a person of ordinary creativity, not an automaton, who is able in many cases, to fit the teachings of multiple patents together like pieces of a puzzle. MPEP 2141.03 citing

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KSR International Co. v. Teleflex Inc., 550 U.S. ___, ___, 82 USPQ2d 1385, 1397 (2007).

Appellants next state (Appeal Brief heading "4.b. Claims 65-67") that claims 65-67 are allowable based upon appellants' arguments made in Appeal Brief section 4.a. and present no further arguments (see Appeal Brief at page 21, paragraph immediately below the heading "4.b. Claims 65-67"). Accordingly, the examiner maintains the positions stated for Appeal Brief section 4.a.

Regarding the fifth ground of rejection, appellants state (Appeal Brief heading "5.a. Claim 63") that claim 63 is allowable based upon appellants' arguments made in Appeal Brief section 1.a. and present no further arguments (see Appeal Brief at page 21, paragraph immediately below the heading "5.a.. Claim 63"). Accordingly, the examiner maintains the positions stated for Appeal Brief section 1.a.

The following issue is being addressed for the first time herein because it was raised for the first time in the Appeal Brief. Regarding the sixth ground of rejection, appellants first argue (Appeal Brief heading "6.a. Claim 61") that the term "high" (as in "high pressure") in claim 61 is not a relative term which renders the claim indefinite since, it is alleged, the present specification discloses an embodiment wherein "high pressure" is disclosed as at least 5000 psi and more particularly 10,000 psi. The examiner maintains the position that the term "high" is a relative term which renders the claim indefinite. The term "high pressure" is not defined in the specification. Although

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the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Further, the specification here is merely referring to one embodiment; thus, the meaning of “high pressure” for another embodiment could be different than “at least 5000 psi and more particularly 10,000 psi”. Further, regarding the phrase “and more particularly 10,000 psi”, it is not clear whether 10,000 psi is required for “high pressure”, whether 5000 psi is sufficient, or if the sufficient pressure for “high pressure” is some number between 5000 and 10,000 psi.

Appellants again repeat the argument that the Office failed to determine the level of ordinary skill in the art (see Appeal Brief at page 21, first paragraph). The examiner again takes the position stated above in response to the first occurrence of this argument. That is, the person of ordinary skill in the art is a hypothetical person who is presumed to have known the relevant art at the time of the invention. Factors that may be considered in determining the level of ordinary skill in the art may include: (A) “type of problems encountered in the art;” (B) “prior art solutions to those problems;” (C) “rapidity with which innovations are made;” (D) “sophistication of the technology; and” (E) “educational level of active workers in the field. In a given case, every factor may not be present, and one or more factors may predominate.” MPEP 2141.03 citing *In re GPAC*, 57 F.3d 1573, 1579, 35 USPQ2d 1116, 1121 (Fed. Cir. 1995); *Custom Accessories, Inc. v. Jeffrey-Allan Industries, Inc.*, 807 F.2d 955, 962, 1 USPQ2d 1196, 1201 (Fed. Cir. 1986); and *Environmental Designs, Ltd. V. Union Oil Co.*, 713 F.2d 693, 696, 218 USPQ 865, 868 (Fed. Cir. 1983). A person of ordinary skill in the art is also a

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person of ordinary creativity, not an automaton, who is able in many cases, to fit the teachings of multiple patents together like pieces of a puzzle. MPEP 2141.03 citing *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1397 (2007).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Eric Golightly/

Examiner, Art Unit 1792

Conferees:

/Michael Kornakov/

Supervisory Patent Examiner, Art Unit 1792

/Christopher A. Fiorilla/

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